



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,642	07/29/2003	John W. Evans	79213	6851

22242 7590 11/28/2005

FITCH EVEN TABIN AND FLANNERY
120 SOUTH LA SALLE STREET
SUITE 1600
CHICAGO, IL 60603-3406

EXAMINER

OGDEN JR, NECHOLUS

ART UNIT	PAPER NUMBER
----------	--------------

1751

DATE MAILED: 11/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/629,642

Applicant(s)

EVANS, JOHN W.

Examiner

Necholus Ogden

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-44 is/are pending in the application.
- 4a) Of the above claim(s) 18-25 and 33-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16, 26-32, 43 and 44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Election/Restrictions

1. Applicant's election of claims 1-16, 26-32 and 43-44 in the reply filed on 9-14-05 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Response to Amendment

1. Claims 1-5, 8-12, 14, 26, 28-30 and 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 89/09806 to Reny et al.

Reny et al disclose a coolant composition comprising at least 90% by weight of an alkylene glycol and a corrosion inhibiting amount of an inhibitor comprising (a) from 0.02 to 4 parts by weight of an azole, (b) from 0.05 to 3 parts by weight of a molybdate salt and (c) from 0 to 3 parts by weight of phosphoric acid (page 3, lines 1-11). Reny et al further teach that their coolant composition most preferably contains essentially no water (pg. 5, lines 28-34).

Reny et al, however, do not exemplify a coolant composition containing less than 0.5% by weight of water.

It would have been obvious to one of ordinary skill in the art to decrease the amount of water present in example 1 of Reny et al because Reny et al specifically teach that it is preferred that the alkylene glycol is used with essentially no water.

2. Claims 1-16, 26-32 and 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chemical Abstracts 120:195478 to Cougenhour et al or Chemical

Art Unit: 1751

Abstracts 116:86516 to Dingley or Evans (5,031,579), each in view of Mascioli et al or Greaney (5,422,026) or Uekusa et al (5,387,360).

Coughenour et al disclose the use of non-aqueous propylene glycol as an engine coolant (see abstract).

Dingley disclose the use of monopropylene glycol as the entire engine coolant (see abstract).

Evans '579 discloses a substantially anhydrous coolant comprising propylene glycol (col. 5, lines 50-53) and specifically teaches that said method comprises substantially no water (col. 6, lines 1-3).

Neither Coughenour et al nor Dingley nor Evans '579 disclose the inclusion of molybdate, nitrate or an azole compound.

Mascioli et al disclose an antifreeze composition comprising propylene glycol, sodium molybdate, sodium nitrate, and tolyltriazole (table 3, of example 1).

Greaney disclose an antifreeze composition comprising propylene glycol, sodium molybdate, sodium nitrate and tolyltriazole (table 3 example 1).

Uekusa et al disclose an antifreeze composition comprising propylene glycol, sodium molybdate, sodium nitrate and tolyltriazole (example 8, table 1).

It would have been obvious to one of ordinary skill in the art to add the molybdate, nitrate and tolyltriazole components of either Mascioli et al or Greaney or Uekusa et al to the propylene glycol coolants of Coughenour et al or Dingley or Evans '579 because Mascioli et al or Greaney or Uekusa et al each teach that molybdates, nitrates, and tolyltriazole are effective corrosion inhibitors for propylene glycol coolants, and it

Art Unit: 1751

appears that the propylene glycol coolants of Coughenour et al or Dingley or Evans '579 would benefit from the corrosion inhibition of the additives disclosed by Mascioli et al or Greaney or Uekusa et al, absent a showing to the contrary.

Response to Arguments

3. Applicant's arguments filed 4-20-05 have been fully considered but they are not persuasive.

Applicant states that because of "fear of water one of ordinary skill in the 1993" would not have understood the cited Evans patent to suggest the use of 100% of propylene glycol and without the use of a buffer." Applicant further argues that one of ordinary skill in the art, based on the '579 patent, would not have used a non-buffered propylene glycol composition which also included corrosion inhibitors additives."

The examiner contends and respectfully disagrees because it is the examiners positions, however, that it appears a buffer is not required to be employed in a composition comprising propylene glycol and either a molybdate, nitrate or azole as shown by Mascioli et al (5,240,631). Note, that the composition of Mascioli et al contains propylene glycol, a molybdate, a nitrate and tolyltriazole, and that no buffer is required (Table 1, column 3, lines 20-30). It is acknowledged that Mascioli et al teach that an alkali metal hydroxide is employed to provide a final pH of 7-10 for concentrate plus water coolant formulation (col. 2, lines 49-51), however the inclusion of the alkali metal hydroxide appears to be limited to the situation where the concentrate is diluted with a significant portion of water. Therefore, Evans does suggest applicant's claimed invention in view of the Mascioli et al.

Art Unit: 1751

Applicant argues that Coughenour and Dingley articles would not need corrosion inhibitors because as stated by Coughenour "chemical addition should be greatly simplified."

The examiner maintains that it would have been obvious to one of ordinary skill in the art to add the sodium molybdate, sodium nitrate and tolyltriazole corrosion inhibitors of either Mascioli et al or Greaney et al or Uekusa et al to the propylene glycols of Coughenour et al or Dingley because Mascioli et al or Greaney et al or Uekusa et al each teach that sodium molybdate, sodium nitrate and tolyltriazole are effective corrosion inhibitors for propylene glycol coolants and it appears that the propylene glycol coolants of Coughenour et al or Dingley would benefit from the corrosion inhibition of the additives disclosed in Mascioli et al or Greaney et al or Uekusa et al.

Applicant argues that Reny et al do not teach that it is exemplified to use propylene glycol with less than 0.5% water and Reny does not suggest any corrosion inhibitors.

The examiner maintains, however, that Reny et al specifically teach that it is preferable that the alkylene glycol is used with essentially no water (page 5, lines 28-24), wherein it appears that "essentially no water" would encompass amounts of less than 0.5%. Moreover, Reny exemplifies tolyltriazole and sodium molybdate as corrosion inhibitors (examples 1-2).

Applicant states that Mascioli et al or Greaney et al or Uekusa et al teach the use of corrosion inhibitors in aqueous compositions.

Art Unit: 1751

The examiner respectfully disagrees and contends that Mascioli et al or Greaney et al or Uekusa et al each teach that the water content is small amounts from 1 to 5% as compared to applicant's less than 0.5%, however, Mascioli et al or Greaney et al or Uekusa et al are relied upon to show that the claimed "propylene glycol soluble additives" are well known in the art.

4. The Declaration under 37 CFR 1.132 filed 4-20-05 is insufficient to overcome the rejection of claims 1-16, 26-32 and 43-44 based the last Office action because:

5. As stated above in the Response to Arguments section, Declarant states that because of "fear of water one of ordinary skill in the 1993" would not have understood the cited Evans patent to suggest the use of 100% of propylene glycol and without the use of a buffer." Declarant further argues that one of ordinary skill in the art, based on the '579 patent, would not have used a non-buffered propylene glycol composition which also included corrosion inhibitors additives."

The examiner contends and respectfully disagrees because it is the examiners positions, however, that it appears a buffer is not required to be employed in a composition comprising propylene glycol and either a molybdate, nitrate or azole as shown by Mascioli et al (5,240,631). Note, that the composition of Mascioli et al contains propylene glycol, a molybdate, a nitrate and tolyltriazole, and that no buffer is required (Table 1, column 3, lines 20-30). It is acknowledged that Mascioli et al teach that an alkali metal hydroxide is employed to provide a final pH of 7-10 for concentrate plus water coolant formulation (col. 2, lines 49-51), however the inclusion of the alkali metal hydroxide appears to be limited to the situation where the concentrate is diluted

Art Unit: 1751

wit a significant portion of water. Therefore, Evans does suggest applicant's claimed invention in view of the Mascioli et al.

Declarant argues that Coughenour and Dingley articles would not need corrosion inhibitors because as sated by Coughenour "chemical addition should be greatly simplified."

The examiner maintains that it would have been obvious to one of ordinary skill in the art to add the sodium molybdate, sodium nitrate and tolyltriazole corrosion inhibitors of either Mascioli et al or Greaney et al or Uekusa et al to the propylene glycols of Coughenour et al or Dingley because Mascioli et al or Greaney et al or Uekusa et al each teach that sodium molybdate, sodium nitrate and tolyltriazole are effective corrosion inhibitors for propylene glycol coolants and it appears that the propylene glycol coolants of Coughenour et al or Dingley would benefit from the corrosion inhibition of the additives disclosed in Mascioli et al or Greaney et al or Uekusa et al.

Declarant argues that Reny et al do not teach that it is exemplified to use propylene glycol with less than 0.5% water and Reny does not suggest any corrosion inhibitors.

The examiner maintains, however, that Reny et al specifically teach that it is preferable that the alkylene glycol is used with essentially no water (page 5, lines 28-24), wherein it appears that "essentially no water" would encompass amounts of less than 0.5%. Moreover, Reny exemplifies tolyltriazole and sodium molybdate as corrosion inhibitors (examples 1-2).

Art Unit: 1751

Declarant argues that it would not have been obvious to include corrosion inhibitors that worked in systems with essentially little or some water to work in systems that had essentially no water.

The examiner disagrees and directs applicant's attention to Uekusa et al that teach that there is a need for corrosion resistance to alcohols present in engine coolant formulations (col. 1, lines 14-21). Therefore, one of ordinary skill in the art would look to Uekusa et al to suggest that the alcohols such as propylene glycols were causing corrosion and therefore the need for corrosion inhibition would not be solely based upon the addition of water but also the use of propylene glycol based solutions.

With respect to subparagraphs 13-14 of the Declaration, the examiner contends that applicant has not sufficiently demonstrated that additives would not be needed in the compositions of Coughenour et al because they would fall from suspension and congeal. This assertion has not been established by comparing the data, commensurate in scope with the claimed invention against the disclosure of Coughenour et al. Therefore, the rejection is maintained for reasons disclosed herein.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the


Art Unit: 1751

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Necholus Ogden whose telephone number is 571-272-1322. The examiner can normally be reached on M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra N. Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Necholus Ogden
Primary Examiner
Art Unit 1751

No
11-19-05